

Notice of Allowability

Application No.

10/712,659

Applicant(s)

BOURRIERES ET AL.

Examiner

Christopher C. Johns

Art Unit

3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6 August 09.
2. ☒ The allowed claim(s) is/are 1-4.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20090820</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input checked="" type="checkbox"/> Other <u>EAST Search Notes, Non-Patent Literature
searches (2)</u> . |

DETAILED ACTION

Acknowledgements

1. This Office Action is given Paper No. 20090820 for reference purposes only.
2. This Office Action is in response to the Amendment after Final, filed 6 August 2009.
3. All references to the capitalized version of "Applicant" refer specifically to the Applicant or Applicants of record in the instant application. Any references to lowercase versions of "applicant" or "applicants" refer to any or all patent applicants. Unless expressly noted otherwise, references to the capitalized version of "Examiner" refers to the Examiner of record while reference to or use of the lower case version of "examiner" or "examiners" refers to examiner(s) generally. The notations in this paragraph apply to any future Office actions from this Examiner.
4. Claims 1-4 and 9 are pending.

EXAMINER'S AMENDMENT

5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
6. Authorization for this examiner's amendment was given in a telephone interview with Walter J. Steinkraus (#29,592) on 20 and 21 August 2009.
7. The application has been amended as follows:

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8. In claim 1, page 2, line 26, replace “an operator” with --a human operator--
9. In the specification, page 5, line 16, replace “later” with --latter--
10. In the specification, page 6, line 4, replace “an operator” with --a human operator--
11. In the specification, page 7, line 6, replace “a unique a non” with --a unique non--
12. Delete claim 9 (page 2, lines 25-26).

Reasons for Allowance

13. The following is an examiner’s statement of reasons for allowance:
14. Regarding the claimed terms, the Examiner notes that a “general term must be understood in the context in which the inventor presents it.” *In re Glaug*, 283 F.3d 1335, 1340, 62 USPQ2d 1151, 1154 (Fed. Cir. 2002). Therefore, the Examiner must interpret the claimed terms as they are found on pages 1-7 of the specification. Clearly, almost all of the general terms in the claims may have multiple meanings. So, where a claim term “is susceptible to various meanings...the inventor’s lexicography must prevail...” *Id.* Using these definitions for the claims, the claimed invention was not reasonably found in the prior art.
15. The primary references, Farrall (United Kingdom Patent 2,304,077), Houvener (United States Patent 5,657,389) and Pappu (United States Patent 6,584,214), disclose as previously

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discussed (see at least Office Action of 12 May 2009). These references however, do not teach “a human operator visually comparing the identifier...located on the medium and its image displayed on the terminal and/or on the receipt of the printer”.

16. Moreover, the missing claimed elements from Smith are not found in a reasonable number of references. Yet even if the missing claimed element were found in a reasonable number of references, a person of ordinary skill in the art at the time the invention was made would not have been motivated to include these missing elements in an embodiment in the Smith disclosure because: the disclosed system in Pappu teaches that the simplest equation to find the “correlation between two images” (images that are formed using the bubbling described by Pappu) is given by the formula on column 4, lines 35-51:

Most simply, the scattering pattern 112 is simply compared against a an expected pattern stored in analysis module 125, and a correlation score developed to assess the degree of similarity. Correlation is an analytical technique for comparing two data sets that is useful for finding similar regions in two images. The normalized correlation $\phi_{a,b}(x,y)$ of two images described by the arrays $a(x,y)$ and $b(x,y)$, a and b representing some definitive encoded parameter such as luminance, is defined by

$$\phi_{a,b}(x,y) = \frac{\int_{-\infty}^{\infty} \int_{-\infty}^{\infty} (a(\xi - x, \eta - y) - \bar{a})(b(\xi - x, \eta - y) - \bar{b}) d\xi d\eta}{\left(\int_{-\infty}^{\infty} \int_{-\infty}^{\infty} (a(\xi - x, \eta - y) - \bar{a})^2 d\xi d\eta \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} (b(\xi - x, \eta - y) - \bar{b})^2 d\xi d\eta \right)^{1/2}}$$

where \bar{a} is the mean value of $a(x,y)$ and \bar{b} is the mean value of $b(x,y)$.

17. A human operator could not possibly calculate this formula between two arbitrary images in any reasonable amount of time.

18. Therefore, it would NOT have been obvious to combine the references (Farrall, Houvener, and Pappu) with a reference teaching a human being performing an image analysis.

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19. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

20. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Christopher C. Johns whose telephone number is (571)270-3462. The examiner can normally be reached on Monday - Friday, 9 am to 5 pm.

21. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Andrew Fischer can be reached on (571) 272-6779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

22. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher C Johns/
Examiner, Art Unit 3621

/ANDREW J. FISCHER/
Supervisory Patent Examiner, Art Unit 3621